CDC & ATSDR NAMING STANDARDS FOR NETWORK-BASED SERVICE PROVIDERS

Introduction

The current network naming standards, introduced with the advent of NetWare at CDC and last revised several years ago, were created primarily to aid in the ongoing use and management of NetWare file servers in a NetWare bindery name space. With the wide-spread use of new workstation and server operating systems, and the ongoing evolution of name spaces and directory services, the time has come to expand our naming standards.

The following document is the result of lengthy consideration and discussion in a variety of IRM forums, and is guaranteed to have something to offend everyone. The aim of it, though, is to define naming conventions that can be consistently employed across the various name spaces in our environment while providing flexibility and useful information in the naming of workstations, service providers, and other network entities. We have also endeavored to incorporate current conventions, so as to minimize the impact of adopting the expanded standard.

Specifically, changes to the existing standards are as follows:

A "W" type designator has been added to be used in naming all workstations, regardless of platform.

An "I" (Infrastructure) type designator has been added to be used in naming servers that provide system services, such as Domain Controllers and WINS, DHCP or DNS servers, etc.

All names will be constrained to 15 characters to accommodate Netbios naming limitations inherent in current Microsoft-based systems.

All names will be subject to DNS naming constraints with regard to characters allowed (no underscores) and the fact that all names must begin with an alpha character (see special notes on Microsoft SQL servers). This becomes increasingly important as CDC implements Windows NT 5.0, which depends on DNS for it locator services.

"CDC" will be allowed as an organizational code in the first segment, to be used in naming resources that are for agency-wide (or world-wide) usage.

3-character city or campus abbreviations will be allowed in the second segment for resources that are allocated by use geographically rather than organizationally (such as cluster servers, Exchange servers, etc).

A special section has been added for naming of Microsoft Domains.

Server and workstation names will reflect usage rather than management of a resource. For instance, a global resource maintained by IRMO would have a name like MCDC-ATL-01, rather than MOPS-IRM-ATL01.

The "M" designation will be expanded to encompass any messaging server, including Exchange servers, email gateways, etc.

The section on implementation issues has been dropped as it is no longer relevant.

The "X" designation for Unix servers has been dropped, since type designation will hereafter reflect functionality rather than platform.

Scope of the Standard

This standard covers NetWare-based service providers, including file servers, multiprotocol routers, and SAA Gateways; Windows NT««-based Service providers, such as SQL, Exchange, Winframe, WINS, and DHCP servers, and domain controllers; Windows/95 and Windows/NT«« workstations, and unix-based servers and workstations. This standard applies to all "Temporary" or "Test" computers as well as those in production. Where possible, the workstation name should match the leftmost segment of its DNS or NDS name. The intent is for resources and workstations to be identified by the same name across various namespaces, with the long term goal of a single, integrated namespace.

Components of a server name

Server names will consist of 3 segments separated by hyphens as follows:

Character 1: General function

(see function designation table below).

Characters 2-4: Abbreviation of Top-level Organization

The "N" for "National" should not be used in CIO abbreviations, since it would expand this segment to 4 characters and provide no benefit in terms of recognition or differentiation. "CDC" may be used for resources that are

global in nature (agency-wide or world-wide use).

Character 5: Literal "-"

Characters 6-8: Division or Geographical Designation

Where the specific division abbreviation is not appropriate, one of the following may be used:

"XDV", to designate all sub-organizations w/in the first-segment organization.

A city or campus abbreviation where usage is geographically rather than organizationally based (table given later in document).

Character 9: Literal "-"

Characters 10-15 Meaningful suffix

May be location, function, sub-organization, etc., at the system administrator's discretion. Note that while simple tie-breakers meet the requirements of the standard, they're generally not very helpful in management and trouble-shooting tasks.

Domain Names

The global accounts domain will be called CDC. Resource domains will follow the same conventions as service providers, except that the type designator will be replaced by the characters "RES-", and only the one organizational segment will be mandatory. Examples: RES-CDC, RES-EPO, RES-CID-DVD, RES-OPS-IRM. Since resource domains have to do with management and access, they should reflect the managing organization, and geographic designators would only be appropriate in the second segment (e.g., RES-NIO-MTN).

Notes and Examples

No changes will be necessary in the case of non-global servers, such as FOPS-IRM-1, ACCD-XDV-RHODES, or FNIO-OD-1.

The CIO and division segments will generally pertain to the intended audience of the service, when this is different from the organization managing it.

Workstations would generally be treated as organizationally-based resources and, when associated with a specific individual, should use that

individual's 4-character CDC user-id for a 3rd segment, with a one- or two-letter tie-breaker where an individual is associated with more than one workstation. Examples: WOPS-IRM-PRP1, WOPS-IRM-JMC4NT.

NT server names must not contain underscores, or they will become unavailable as NT 5.0 is implemented. While NT Server names should not contain underscores, it is acceptable for the actual SQL service itself to contain underscores in place of dashes. The process for using dashes in the NT Server name but not in the SQL Service name is described in Microsoft technical document Q158450.

Appendix A: Function Designations:

A Application Servers
These are servers used only for storing executables or for hosting
client-server applications.
C Communications Server
Servers providing asynchronous services (fax gateways, modem pools, etc.)
to workstation-based clients via the network. Examples include NT Servers
hosting Citrix Winframe and/or Remote Access Services (RAS).
D Data Storage
Servers primarily used for hosting data storage devices (optical, CD-Rom,
backup, and other mass-storage devices).
F File Server
Primary, general purpose, generic file server. This is usually a
"preferred server" and/or local postoffice.
G Mainframe Gateways (SNA and SAA)
I Infrastructure Service Providers
The will designate system or infrastructure-oriented service providers,
such as DNS, WINS, DHCP servers, Domain Controllers, etc.
M Messaging Service Providers
Exchange Servers, non-local MSMail Post Offices, mail-related gateways,
etc.
O Other
This designation will be used for servers which do not fit any of the
above categories, and of which there will not be enough occurrences to
warrant creating a new designation.
P Print Servers
These come in a wide variety of flavors. Where practical they should
follow these naming conventions.
Q SQL Servers
R Multiprotocol Routers
S Standby or Shadow Servers
Servers Running LAN Shadow, or similar package. The purpose of these
servers is to provide a "hot" replacement (with only renaming required)

should the server it's "shadowing" go down.

T Test Servers

This designation is meant for servers whose function is R & D, and which typically are brought up and down without need of notifying any end users.

U "Universal" servers

These are servers which provide CDC-Wide or wider services, such as WONDER, Medline, and those provided by HRMO (This designation maintained for backwards compatibility - global service providers may also be designated by using "CDC" as the top-level organization code.

W Workstations

This designation will be used for all named workstations, regardless of O/S platform.

Servers with Multiple functionally

Typically, primary local NetWare servers can provide a variety of services (File & Print, Routing, E-mail postoffice, application server, storage, etc). These will continue to be given the "F" designation as has been the case historically.

Non-primary servers which provide services to one or more organizations or localities may be typed according to its primary function, or may be given a more generic type, such as "A" for application server.

A Application Servers
C Communications Server
D Data Storage
F File Server
G Mainframe Gateways (SNA and SAA)
I Infrastructure Service Providers
M Messaging Service Providers
O Other
P Print Servers
Q SQL Servers
R Multiprotocol Routers
S Standby or Shadow Servers
T Test Servers
U "Universal" servers
W Workstations

Appendix B: City and Campus Abbreviations

Anchorage, Alaska	ANC
Atlanta	ATL
Buckhead	BKH
Century Center, Old	CCO
Century Center, New	CCN

Chamblee	CHM
Cincinnatti (City)	CIN
Cincinnatti Taft	CNT
Cincinnatti Hamilton	CNH
Clifton Road	CLF
Corporate Sq	CSQ
Executive Park	EXP
Fort Collins	FTC
Hyattsville	HVL
Koger Rhodes	KRH
Koger Davidson	KDV
Koger Yale	KYA
Lawrenceville	LVL
Morgantown	MTN
Pittsburgh	PIT
Pub. Distr. Facility	PDR
Spokane	SPO